

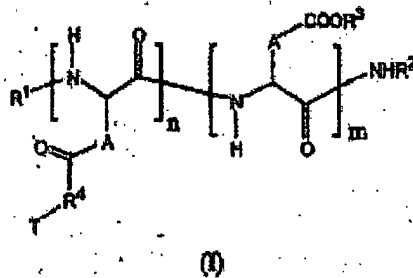
Application No.: 10/516,733

Docket No.: 022290.0122PTUS

This listing of claims will replace all prior versions, and listings, of claims in the application:

### Listing of Claims

1. (Previously Presented) A polyamino acid comprising aspartic units and/or glutamic units, characterized in that at least some of these units bear side chains comprising at least one  $\alpha$ -tocopherol unit.
2. (Currently Amended) The polyamino acid as claimed in claim 1, characterized by the general formula (I) below:



in which:

- $R^1$  represents H, a linear C2 to C10 or branched C3 to C10 acyl group, or a pyroglutamate;
- $R^2$  represents H, a C2 to C10 linear or C3 to C10 branched alkyl, benzyl or a terminal amino acid unit;
- $R^3$  is H or a cationic species preferably selected from the group consisting of:
  - metallic cations ~~advantageously chosen~~ selected from the subgroup ~~comprising~~ consisting of sodium, potassium, calcium and magnesium,
  - organic cations ~~advantageously chosen~~ selected from the subgroup ~~comprising~~ consisting of:
    - amine-based cations,
    - oligoamine-based cations,
    - cations based on polyamine,

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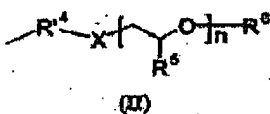
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- cations based on amino acid(s) ~~advantageously chosen~~ selected from the class comprising cations based on lysine or arginine,
  - [[or]] and cationic polyamino acids advantageously chosen selected from the subgroup ~~comprising~~ consisting of polylysine [[or]] and oligolysine;
  - R' represents a direct bond or a "spacer" based on 1 to 4 amino acid units;
  - A independently represents a  $-\text{CH}_2-$  (aspartic unit) or  $-\text{CH}_2-\text{CH}_2-$  (glutamic unit) radical;
  - $n/(n+m)$  ~~is defined as the molar degree of grafting and~~ ranges from 0.5 to 100 mol%;
  - $n+m$  ranges from 3 to 1000 ~~and preferably between 30 and 300~~;
  - T represents an  $\alpha$ -tocopherol unit.
3. (Original) The polyamino acid as claimed in claim 1 or 2, characterized in that the  $\alpha$ -tocopherol is of natural origin.
4. (Original) The polyamino acid as claimed in claim 1 or 2, characterized in that the  $\alpha$ -tocopherol is of synthetic origin.
5. (Currently Amended) The polyamino acid as claimed in claim 2, characterized in that it ~~consists of the polyamino acid~~ comprises an  $\alpha$ -L-glutamate or  $\alpha$ -L-glutamate homopolymer.
6. (Currently Amended) The polyamino acid as claimed in claim 2, characterized in that it ~~consists of the polyamino acids~~ comprises an  $\alpha$ -L-aspartate or  $\alpha$ -L-aspartic homopolymer.
7. (Currently Amended) The polyamino acid as claimed in claim 2, characterized in that it ~~consists of the polyamino acids~~ comprises an  $\alpha$ -L-aspartate/ $\alpha$ -L-glutamate or  $\alpha$ -L-aspartic/ $\alpha$ -L-glutamic copolymer.
8. (Currently Amended) The polyamino acid as claimed in claim 1 or 2, characterized in that the distribution of the aspartic and/or glutamic units ~~bearing grafts that bear side chains~~ comprising at least one  $\alpha$ -tocopherol unit is such that the polymers ~~thus composed~~ are either random, or of block type, or of multiblock type.
9. (Previously Presented) The polyamino acid as claimed in claim 1 or 2, characterized in that their molar mass is between 2000 and 100 000 g/mol.

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10. (Previously Presented) The polyamino acid as claimed in claim 1 or 2, characterized in that the molar degree of grafting is between 3% and 70%.
11. (Currently Amended) The polyamino acid as claimed in claim 1 [[or 2]], characterized in that [[it]] the polyamino acid bears at least one graft of polyalkylene glycol type linked to a glutamate and/or aspartate unit.
12. (Currently Amended) The polyamino acid as claimed in claim 11, of formula (II) below:



in which:

- R<sup>4</sup> represents a direct bond or a "spacer" based on 1 to 4 amino acid units;
- X is a hetero atom chosen from the group comprising consisting of oxygen, nitrogen and sulfur;
- R<sup>5</sup> and R<sup>6</sup> independently represent H or a linear C1 to C4 alkyl;
- n ranges from 3 to 1000.

13. (Currently Amended) The polyamino acid as claimed in claim [[1, 2 or]] 12, characterized in that [[a]] the at least one graft of polyalkylene glycol type linked to a glutamate and/or aspartate unit is a polyethylene glycol.
14. (Previously Presented) The polyamino acid as claimed in claim 11, characterized in that the molar percentage of grafting of the polyalkylene glycol ranges from 1% to 30%.
15. (Currently Amended) A pharmaceutical, cosmetic, or dietetic ~~or plant protection~~ composition comprising at least one of the polyamino acids as claimed in any one of claims 1 or 2 [[to 14]].
16. (Previously presented) The composition as claimed in claim 15 characterized in that it comprises at least one active principle.

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17. (Currently Amended) The composition as claimed in claim ~~[[15 or]]~~ 16, characterized in that the active principle is selected from the group consisting of: a protein, a glycoprotein, a polysaccharide, a liposaccharide, an oligonucleotide, a polynucleotide ~~[[or]]~~ and a peptide.

18. (Currently Amended) The composition as claimed in claim 16 ~~[[or 17]]~~, characterized in that the active principle is a small organic molecule that is hydrophobic, hydrophilic or amphiphilic ~~[organic "small" molecule]~~.

19. (Currently Amended) The composition as claimed in ~~any one of claim[[s]]~~ 15 ~~[[to 18]]~~, ~~characterized in that it may be~~ wherein the composition is a pharmaceutical and is administered via the oral, parenteral, nasal, vaginal, ocular, subcutaneous, intravenous, intramuscular, intradermal, intraperitoneal, intracerebral or buccal route.

20. (Currently Amended) The composition as claimed in ~~any one of claim[[s]]~~ 15 ~~[[to 19]]~~, characterized in that it is in the form selected from the group consisting of a gel, an emulsion, a solution, a suspension, micelles, nanoparticles, microparticles, a powder ~~[[or]]~~ and a film.

21. (Currently Amended) The composition is claimed in ~~any one of claim[[s]]~~ 15 ~~[[to 20]]~~, characterized in that it is a colloidal suspension of nanoparticles and/or microparticles and/or micelles of polyamino acids, in an aqueous phase.

22. (Currently Amended) The composition as claimed in ~~any one of claim[[s]]~~ 15 ~~[[to 19]]~~, characterized in that it is in the form of a solution in a biocompatible solvent and in that it is capable of being injected subcutaneously, intramuscularly or into a tumor.

23. (Currently Amended) The composition as claimed in ~~any one of claim[[s]]~~ 15 ~~[[to 22]]~~, wherein the composition is a pharmaceutical and ~~characterized in that it is~~ injectable and in that it is capable of forming a deposit at the site of injection.

24. (Currently Amended) The composition as claimed in ~~any one of claim[[s]]~~ ~~15 to 23~~ 16, wherein the composition is for pharmaceutical use and is ~~characterized in that it is~~ for the preparation~~[[:]]~~ of medicinal products, ~~in particular for oral, nasal, vaginal, ocular, subcutaneous, intravenous, intramuscular, intradermal, intraperitoneal or intracerebral administration, the active principles of these medicinal products possibly being, especially,~~ selected from the group consisting of proteins, glycoproteins, proteins linked to one or more polyalkylene glycol chains ~~{for example polyethylene glycol (PEG), in which case they are referred to as "PEGylated"~~

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~~proteins}~~, peptides, polysaccharides, liposaccharides, oligonucleotides, polynucleotides ~~[[and]]~~,  
small organic molecules that are hydrophobic, small organic molecules that are hydrophilic [[or]]  
and small organic molecules that are amphiphilic, ~~organic small molecules, and/or nutrients;~~  
~~and/or cosmetic or plant protection products.~~

25. (Cancelled)
26. (New) The polyamino acid of claim 2, wherein the  $n+m$  ranges from 30 to 300.